3 50 55 Val Ile Pro Thr Asp Thr Ile Lys Asn Thr Val Asn Val Leu Ala Lys Phe Lys Gly Ile Lys Ser Ile Glu Thr Phe Ala Val Thr Ile Cys Glu His Phe Leu Ser Ser Phe Lys His Val Ile Arg Ala Gln Val Tyr Val Glu Glu Val Pro Trp Lys Arg Phe Glu Lys Asn Gly Val Lys His Val His Ala Phe Ile Tyr Thr Pro Thr Gly Thr His Phe Cys Glu Val Glu Gln Ile Arg Asn Gly Pro Pro Val Ile His Ser Gly Ile Lys Asp Leu Lys Val Leu Lys Thr Thr Gln Ser Gly Phe Glu Gly Phe Ile Lys Asp Gln Phe Thr Thr Leu Pro Glu Val Lys Asp Arg Cys Phe Ala Thr Gln Val Tyr Cys Lys Trp Arg Tyr His Gln Gly Arg Asp Val Asp Phe Glu Ala Thr Trp Asp Thr Val Arg Ser Ile Val Leu Gln Lys Phe Ala Gly Pro Tyr Asp Lys Gly Glu Tyr Ser Pro Ser Val Gln Lys Thr Leu Tyr Asp Ile Gln Val Leu Ser Leu Ser Arg Val Pro Glu Ile Glu Asp Met Glu Ile Ser Leu Pro Asn Ile His Tyr Phe Asn Ile Asp Met Ser Lys Met Gly Leu Ile Asn Lys Glu Glu Val Leu Leu Pro Leu Asp Asn Pro Tyr Gly Lys Ile Thr Gly Thr Val Lys Arg Lys Leu Ser Ser Arg Leu 290 295 300 <210> 3 <211> 915 <212> DNA <213> Artificial Sequence <220> <221> CDS <222> (1)..(915)

<223> Description of Artificial Sequence:pks chimera

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10 15 gtc cga act ggc tat ggg aag gat atg ata aaa gtt ctc cat att cag Val Arg Thr Gly Tyr Gly Lys Asp Met Ile Lys Val Leu His Ile Gln cga gat gga aaa tat cac agc att aaa gag gtg gca act tca gtg caa Arg Asp Gly Lys Tyr His Ser Ile Lys Glu Val Ala Thr Ser Val Gln ctg act ttg agc tcc aaa aaa gat tac ctg cat gga gac aat tca gat 192 Leu Thr Leu Ser Ser Lys Lys Asp Tyr Leu His Gly Asp Asn Ser Asp gtc atc cct aca gac acc atc aag aac aca gtt aat gtc ctg gcg aag Val Ile Pro Thr Asp Thr Ile Lys Asn Thr Val Asn Val Leu Ala Lys ttc aaa ggc atc aaa agc ata gaa act ttt gct gtg act atc tgt gag Phe Lys Gly Ile Lys Ser Ile Glu Thr Phe Ala Val Thr Ile Cys Glu cat the eff tee the aag cat gir ate aga get caa gir tat gig 336 His Phe Leu Ser Ser Phe Lys His Val Ile Arg Ala Gln Val Tyr Val 100 gaa gaa gtt cct tgg aag cgt ttt gaa aag aat gga gtt aag cat gtc 384 Glu Glu Val Pro Trp Lys Arg Phe Glu Lys Asn Gly Val Lys His Val 115 cat gca ttt att tat act cct act gga acg cac ttc tgt gag gtt gaa His Ala Phe Ile Tyr Thr Pro Thr Gly Thr His Phe Cys Glu Val Glu 130 135 cag ata agg aat gga cct cca gtc att cat tct gga atc aaa gac cta 480 Gln Ile Arg Asn Gly Pro Pro Val Ile His Ser Gly Ile Lys Asp Leu 145 aaa gtc ttg aaa aca acc cag tct ggc ttt gaa gga ttc atc aag gac Lys Val Leu Lys Thr Thr Gln Ser Gly Phe Glu Gly Phe Ile Lys Asp cag ttc acc acc ctc cct gag gtg aag gac egg tgc ttt gcc acc caa Gln Phe Thr Thr Leu Pro Glu Val Lys Asp Arg Cys Phe Ala Thr Gln 180 624 gtg tac tgc aaa tgg cgc tac cac cag ggc aga gat gtg gac ttt gag Val Tyr Cys Lys Trp Arg Tyr His Gln Gly Arg Asp Val Asp Phe Glu 200 gcc acc tgg gac act gtt agg agc att gtc ctg cag aaa ttt gct ggg 672 Ala Thr Trp Asp Thr Val Arg Ser Ile Val Leu Gln Lys Phe Ala Gly 215 720 ccc tat gac aaa ggc gag tac tcg ccc tct gtc cag aag aca ctc tat Pro Tyr Asp Lys Gly Glu Tyr Ser Pro Ser Val Gln Lys Thr Leu Tyr gac atc cag gtg ctc acc ctg ggc cag gtt cct gag ata gaa gat atg Asp Ile Gln Val Leu Thr Leu Gly Gln Val Pro Glu Ile Glu Asp Met gaa atc agc ctg cca aat att cac tac tta aac ata gac atg tcc aaa

MODELEC OF

tat gga aaa att act ggt aca gtc aag agg aag ttg tct tca aga ctg
Tyr Gly Lys Ile Thr Gly Thr Val Lys Arg Lys Leu Ser Ser Arg Leu

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tga 915

305

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Leu Thr Leu Ser Ser Lys Lys Asp Tyr Leu His Gly Asp Asn Ser Asp 50 60

Val Ile Pro Thr Asp Thr Ile Lys Asn Thr Val Asn Val Leu Ala Lys 65 70 75 80

Phe Lys Gly Ile Lys Ser Ile Glu Thr Phe Ala Val Thr Ile Cys Glu 85 His Phe Leu Ser Ser Phe Lys His Val Ile Arg Ala Gln Val Tyr Val

Glu Glu Val Pro Trp Lys Arg Phe Glu Lys Asn Gly Val Lys His Val

His Ala Phe Ile Tyr Thr Pro Thr Gly Thr His Phe Cys Glu Val Glu

Gln Ile Arg Asn Gly Pro Pro Val Ile His Ser Gly Ile Lys Asp Leu 145 150 155 160

Lys Val Leu Lys Thr Thr Gln Ser Gly Phe Glu Gly Phe Ile Lys Asp 165 170 175

Gln Phe Thr Leu Pro Glu Val Lys Asp Arg Cys Phe Ala Thr Gln 180 185 190

Val Tyr Cys Lys Trp Arg Tyr His Gln Gly Arg Asp Val Asp Phe Glu 195 200 205

Ala Thr Trp Asp Thr Val Arg Ser Ile Val Leu Gln Lys Phe Ala Gly 210 220